

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No.: ISPH-0215
Inventors: McKay et al.
Serial No.: 08/910,629
Filing Date: August 13, 1997
Examiner: M. Shibuya
Group Art Unit: 1635
Title: Antisense Oligonucleotide Compositions and Methods for Modulation of JNK Proteins

Honorable Commissioner of
Patents and Trademarks
Washington, D.C. 20231

Dear Sir:

DECLARATION UNDER RULE 1.131

I, Robert McKay, hereby declare that:

1. I am a co-inventor of the above-identified application, filed on August 13, 1997.
2. As evidenced by the copies of my laboratory notebook pages dated October 11, 1995 attached hereto, the invention of antisense oligonucleotides targeted to JNK1 in this country was made, recorded and disclosed in confidence to another who read and understood the invention, prior to the February 14, 1997 publication date of the Seimiya et al. reference [Seimiya et al., The Journal of Biological Chemistry, 272(7):4631-4636] cited by the Examiner in an Office Action mailed on January 21, 1998 in the above-referenced application.

3. Our invention was not in public use or on sale in this country, or patented or described in a printed publication in this or any foreign country, for more than one year prior to our application. We have never abandoned our invention.

I further declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true, and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

6/3/98

Date



Robert McKay

EXP #32

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SCREENING OF JNK 1 OLIGOS

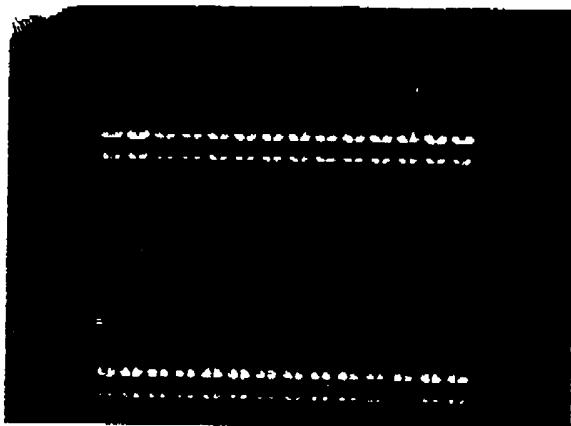
PURPOSE: IDENTIFY AN ACTIVE OLIGO TARGETING HUMAN JNK 1

PROCEDURE: HUMAN AS49 CELLS WERE GROWN TO 80% CONFL AND THEN TREATED WITH 400 nM OLIGO/1.5 μg/ML LIPID FOR 4 HRS AND THEN WASHED AND INCUBATED FOR A FURTHER 20 HRS. RNA WAS EXTRACTED AND ANALYZED BY NORTHERN BLOTTING.

RESULTS:

Sample #	Sample	ug/uL	uL/15 ug
1	No Oligo	2	7.5
2		2.3	6.5
3	11983	2.5	6.0
4		2.7	5.6
5	12463	2.1	7.1
6		1.8	8.3
7	12464	1.9	7.9
8		2	7.5
9	12538	2.3	6.5
10		2.5	6.0
11	12539	2.6	5.8
12		1.9	7.9
13	12548	1.9	7.9
14		2.6	5.8
15	12549	2.6	5.8
16		2.5	6.0
17	12550	2.4	6.3
18		2.1	7.1
19	12551	1.9	7.9
20		1.8	8.3
21	12552	1.7	8.8
22		2	7.5
23	12553	2.1	7.1
24		1.9	7.9
25	12554	2.3	6.5
26		2.4	6.3
27	12555	2.3	6.5
28		2.1	7.1
29	12556	1.9	7.9
30		1.8	8.3
31	12557	2.3	6.5
32		2.5	6.0

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41	42	43	44	45	46
1 NO	NO	NO	1 NO	NO	NO
2			2		
3 12463	12546		3 12463	12549	12554
4			4		12577
5 12464	12547		5 12464	12550	12555
6			6	12542	12463
7 12538	12544		7 12538	12551	12553
8			8	12543	12467
9 12539	12545		9 12539	12552	12557
10			10	12544	12482
11 12540	12546		11 12549	12553	11983
12			12	12546	
13 12541	12547		13 NO	NO	NO
14			14		

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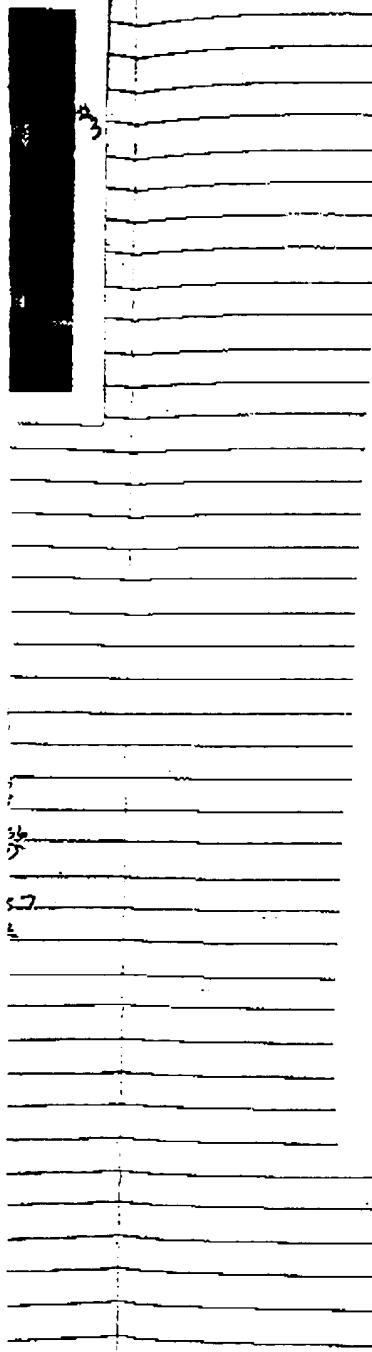
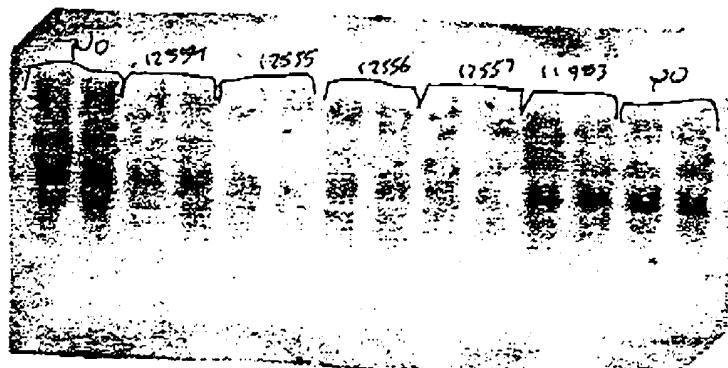
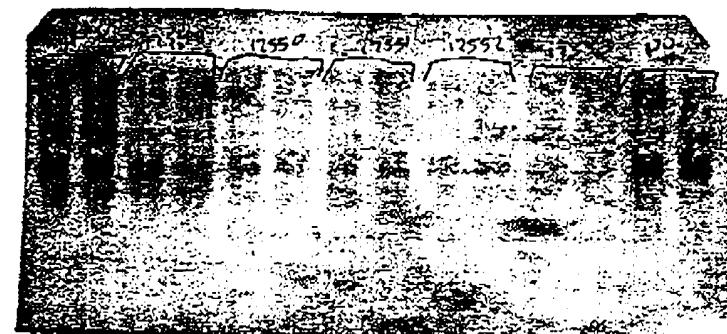
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JNKY

JNK

JNR

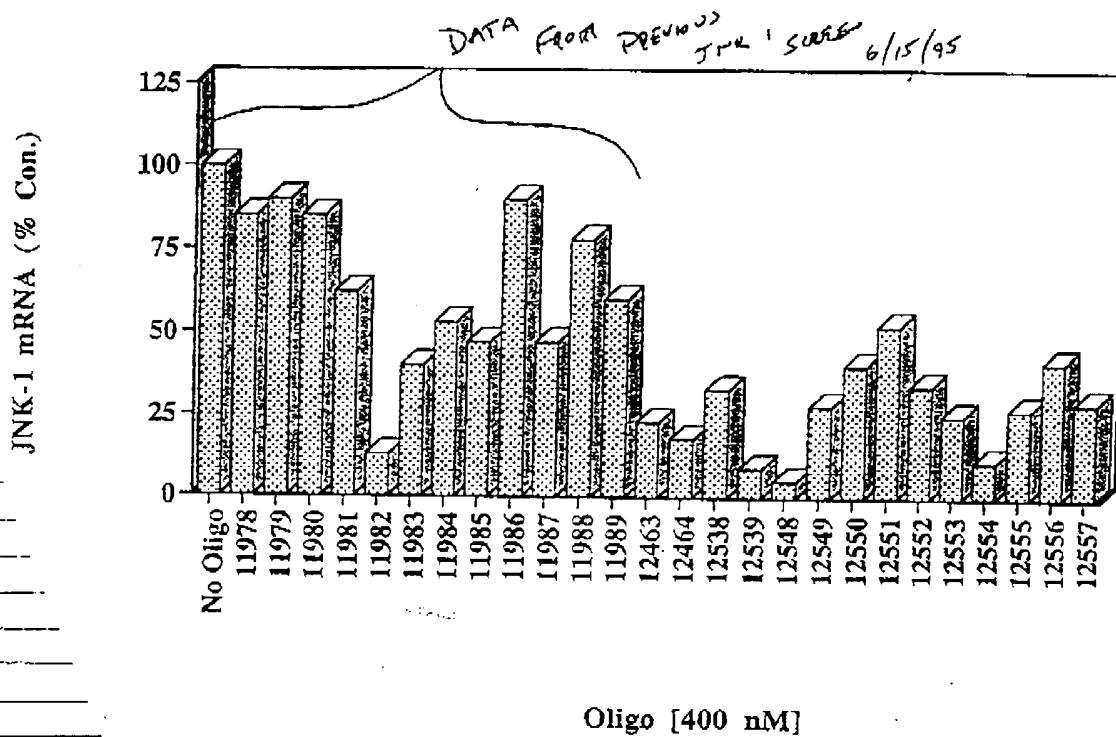


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Sheet2

sample	jnk 1	G3PDH	Norm G3	Norm. JNK1	Avg	% con
No Oligo	115645	655272.941	0.85	78454	75698	100
	125543	647653.488	0.86	73562		
12463	12546	1031448.15	0.54	15456	17410.54	23
	12589	994610.714	0.56	19854		
12464	80391	807220.29	0.69	14265	13625.64	18
	9231	831316.418	0.67	12544		
12538	11356	714079.487	0.78	26789	24980.34	33
	123541	742642.667	0.75	22659		
12539	15654	944037.288	0.59	7801	6812.82	9
	17985	856895.385	0.65	5861		
12548	13656	625822.472	0.89	4501	3784.9	5
	14524	618868.889	0.9	2953		
12549	7085	586296.842	0.95	19215	21195.44	28
	9987	6120.68132	91	23541		
12550	15646	556982	1	31564	30279.2	40
	153221	679246.341	0.82	29584		
12551	11354	714079.487	0.78	36897	39362.96	52
	12451	598905.376	0.93	42564		
12552	10963	568348.98	0.98	24687	25737.32	34
	11235	714079.487	0.78	26598		
12553	18254	773586.111	0.72	15698	18924.5	25
	16454	632934.091	0.88	21548		
12554	106951	647653.488	0.86	7821	8326.78	11
	11278	612068.132	0.91	8854		
12555	15874	574208.247	0.97	22546	20438.46	27
	18658	625822.472	0.89	18546		
12556	11256	640209.195	0.87	29856	31036.18	41
	14563	714079.487	0.78	33599		
12557	9083	742642.667	0.75	22654	21952.42	29
	10023	586296.842	0.95	20154		
11983	62589	605415.217	0.92	31222	30279.2	40
	65369	618868.889	0.9	29565		

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Inhibition of human JNK-1 mRNA expression in A549 cells

Conclusion: Multiple potent JNK-1 oligos have been identified and will be compared head to head to select a lead oligo.



10/11/95

CERTIFICATE OF TRANSMISSION BY FACSIMILE (37 CFR 1.8)				Docket No. ISPH-0526
Applicant(s): McKay et al.				
Serial No. 09/774,809	Filing Date January 31, 2001	Examiner T. Gibbs	Group Art Unit 1635	
Invention: ANTISENSE OLIGONUCLEOTIDE COMPOSITIONS AND METHODS FOR THE MODULATION OF JNK PROTEINS				
<p>I hereby certify that this <u>Terminal Disclaimer to Obviate a Double Patenting Rejection Over a Prior Patent</u> <i>(Identify type of correspondence)</i> is being facsimile transmitted to the United States Patent and Trademark Office (Fax. No. <u>703-872-9306</u>)</p> <p>on <u>January 3, 2003</u> <i>(Date)</i></p> <p style="text-align: right;"><u>Jane Massey Licata</u> <i>(Typed or Printed Name of Person Signing Certificate)</i></p> <p style="text-align: right;"><u>Jane Massey Licata</u> <i>(Signature)</i></p> <p>Note: Each paper must have its own certificate of mailing.</p>				

**Terminal Disclaimer To Obviate A Double
Patenting Rejection Over A Prior Patent**

Docket No.
ISPH-0526

In Re Application Of: **McKay et al.**

Serial No.	Filing Date	Examiner	Group Art Unit
09/774,809	January 31, 2001	T. Gibbs	1635

Invention: **ANTISENSE OLIGONUCLEOTIDE COMPOSITIONS AND METHODS FOR THE
MODULATION OF JNK PROTEINS**

Owner of Record: **Isis Pharmaceuticals, Inc.**

TO THE ASSISTANT COMMISSIONER FOR PATENTS:

The above-identified owner of record of a 100 percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application, which would extend beyond the expiration date of the full statutory term defined in 35 U.S.C. 154 to 156 and 173, as presently shortened by any terminal disclaimer, of prior Patent No. 6,133,246. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the prior patent are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors and/or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term as defined in 35 U.S.C. 154 to 156 and 173 of the prior patent, as presently shortened by any terminal disclaimer, in the event that it later expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 C.F.R. 1.321, has all claims cancelled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.

Check either box 1 or 2 below, if appropriate.

1. For submissions on behalf of an organization (e.g., corporation, partnership, university, government agency, etc.), the undersigned is empowered to act on behalf of the organization.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

2. The undersigned is an attorney of record.

Dated: **January 3, 2003**

Jane Massey Licata

Signature

Jane Massey Licata

Typed or Printed Name

Terminal disclaimer fee under 37 C.F.R. 1.20(d) included.
 PTO suggested wording for terminal disclaimer was unchanged.
 Certification under 37 C.F.R. 3.73(b) is required if terminal disclaimer is signed by the assignee.